

A coal formation may be treated using an in situ thermal process. A mixture of hydrocarbons,  $H_2$ , and/or other formation fluids may be produced from the formation. Heat may be applied to the formation to raise a temperature of a portion of the formation to a pyrolysis temperature. Heating may be controlled such that at least a selected amount of a total organic carbon content of the hydrocarbon material in the formation may be converted into formation fluids.